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UNITED STATES PATENT AND TRADEMARK OFFICE

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Patent Documentation Center	SHAW, YIN CHEN
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2135	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/014,486	COUSINS ET AL.
	Examiner	Art Unit	
	Yin-Chen Shaw	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _14 December 2001_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-29_ is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-29_ is/are rejected.
7) ☒ Claim(s) _12_ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _04 December 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _02/2002-07/2004_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-29 have been submitted for examination.

2. Claims 1-29 have been examined and rejected.

Claim Objections

3. Claim 12 is objected to because of the following informalities:

   a. Claim 12 recites the phrase "wherein the viewport converts the encoded information to decoded information". The viewport, according to the specification, only presents the image of the document without the ability to convert the encoded information to decoded one. Modification on the claim language is suggested .

Appropriate correction is required.

Claim Interpretation

4. Claims have been afforded their broadest reasonable interpretation. Applicant's language directed to the third party check is interpreted as equivalent to any bank check that requires the signature for the purpose of identity verification.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 19-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

    a. *Referring to Claim 19:*

Claim 19 recites "a third-party check comprising: user-inputted information; and a digitally encoded representation of the user-inputted information; wherein the digitally encoded representation may be decoded and compared to the user-inputted information to verify that the third-party check has not been altered". Claim 19 is directed merely to an abstract idea regarding to printing matter that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Therefore, Claim 19 is rejected under 35 U.S.C. 101 for reciting non-statutory matter.

    b. *Referring to Claim 20-23:*

Claims 20-23 are inherited with the same deficiencies as set forth in Claim 19. Therefore, Claims 20-23 are rejected with the same rationale applied against Claim 19.

    c. *Referring to Claim 24:*

Claim 24 recites "a third-party check comprising: human-readable information; and a digitally encoded representation of the human-readable information; wherein the digitally encoded representation may

be decoded and compared to the human-readable information to verify that the third-party check has not been altered". Claim 24 is directed merely to an abstract idea regarding to printing matter that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Therefore, Claim 24 is rejected under 35 U.S.C. 101 for reciting non-statutory matter.

    d. *Referring to Claim 25-29:*

Claims 25-29 are inherited with the same deficiencies as set forth in Claim 24. Therefore, Claims 25-29 are rejected with the same rationale applied against Claim 24.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2, 4-11, 15-18, and 19-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al. (U.S. Patent 5,490,217).

    a. *Referring to Claim 1:*

Wang et al. disclose an apparatus **[i.e. Host computer 4, 6 (Fig. 1)]** for creating a tamper-proof document **[i.e., documents generated by the system of the present invention contain the machine readable image code affixed thereon (i.e., lines 49-51, Col. 4)]**, comprising:

an encoder **[i.e., a machine readable image code encoder 4 (lines 65-66, Col. 3)]** for digitally encoding **[i.e., encode (line 18, Col. 3)]** a handwritten signature **[i.e., an actual signature (line 19, Col. 3)]**; and

a printer **[i.e., a printer (Fig. 8)]** for creating a tamper-proof document comprising the digitally encoded signature.

b. *Referring to Claim 2:*

As per Claim 2, the rejection of Claim 1 is incorporated. In addition, Wang et al. disclose the apparatus of claim 1, wherein the tamper-proof document is a third party check **[i.e., bank checks 32 (as shown in FIG. 9) (lines 7-8, Col. 6)]**.

c. *Referring to Claim 4:*

As per Claim 4, the rejection of Claim 1 is incorporated. In addition, Wang et al. disclose the apparatus of claim 1, wherein the digitally encoded signature is printed on the document in the form of a 2-D barcode **[i.e., two-dimensional machine readable image code 16 (Fig. 9)]**

d. *Referring to Claim 5:*

Claim 5 is a method claim corresponding to the apparatus claim 1. Thus, it is rejected with the same rationale applied against Claim 1 above.

e. *Referring to Claim 6:*

Claim 6 is a method claim corresponding to the apparatus claim 2. Thus, it is rejected with the same rationale applied against Claim 2 above.

f. *Referring to Claim 7:*

Claim 7 encompasses limitations that are similar to those of Claim 5. Thus, it is rejected with the same rationale applied against Claim 5 above.

g. *Referring to Claim 8:*

Claim 8 encompasses limitations that are similar to those of Claim 5. Thus, it is rejected with the same rationale applied against Claim 5 above.

h. *Referring to Claim 9:*

As per Claim 9, Wang et al. disclose the claimed limitation as set forth in Claim 7 in addition of a method for ensuring that a document has not been altered, comprising:

decoding the encoded information **[i.e., When the bearer of such document attempts to use same, the information contained in the machine readable image code may be scanned, decoded (and**

decrypted) (lines 23-26, Col. 3)]; and

comparing the decoded information with the user-inputted portion **[i.e.,
When the bearer of such document attempts to use same, the
information contained in the machine readable image code may be
scanned, decoded (and decrypted) compared to the human
readable information contained on the image-containing document
(lines 26-28, Col. 3)]**; and

identifying the document as altered, if the decoded information is not
identical to the user-inputted portion **[i.e., if said document is altered,
the altered version may be re-entered into the computer, the
computer storage location of the original version of the document
being identified by the information in said machine readable image
code and then stored information may be updated based on the
content of the altered version of the document (lines 46-52, Col. 2)]**.

i. *Referring to Claim 10:*

As per Claim 10, the rejection of Claim 9 is incorporated. In addition,
Claim 10 encompasses limitations that are similar to those of Claim 8.
Thus, it is rejected with the same rationale applied against Claim 8
above.

j. *Referring to Claim 11:*

As per Claim 11, the rejection of Claim 9 is incorporated. In addition,
Wang et al. disclose the method of claim 9, wherein the decoded

information is a graphical recreation of the user-inputted portion **[i.e.,**

When the bearer of such document attempts to use same, the

information contained in the machine readable image code may be

scanned, decoded (and decrypted) compared to the human

readable information contained on the image-containing document

(lines 26-28, Col. 3)].

k. *Referring to Claim 15:*

As per Claim 15, Wang et al. disclose the claimed limitation as set forth

in Claim 1 in addition of a computer-readable medium containing

instructions for controlling a data processing system **[i.e., The**

encoder/decoder 4 will typically be a standard programmable

micro-computer an includes a display, CPU, keyboard, diskdrive

and memory which computer in turn controls the database server,

scanner, printer and communication functions in a manner well

known in the art (lines 3-7, Col. 4)].

l. *Referring to Claim 16:*

As per Claim 16, the rejection of Claim 15 is incorporated. In addition,

Claim 16 is a computer-readable medium claim corresponding to the

apparatus claim 2. Thus, it is rejected with the same rationale applied

against Claim 2 above.

m. *Referring to Claim 17:*

As per Claim 17, Wang et al. disclose the claimed limitation as set forth in Claim 7 in addition of a computer-readable medium containing instructions for controlling a data processing system **[i.e., The encoder/decoder 4 will typically be a standard programmable micro-computer an includes a display, CPU, keyboard, diskdrive and memory which computer in turn controls the database server, scanner, printer and communication functions in a manner well known in the art (lines 3-7, Col. 4)]**.

n. *Referring to Claim 18:*

As per Claim 18, the rejection of Claim 17 is incorporated. In addition, Claim 18 is a computer-readable medium claim corresponding to the method claim 8. Thus, it is rejected with the same rationale applied against Claim 8 above.

o. *Referring to Claim 19:*

Wang et al. disclose a third-party check comprising: user-inputted information **[i.e., an actual signature, significant dates and the like (lines 19-20, Col. 3)]**; and

a digitally encoded representation of the user-inputted information; wherein the digitally encoded representation may be decoded and compared to the user-inputted information to verify that the third-party check has not been altered **[i.e., The encoded (an encrypted if desired) image may then be reproduced on a document such as a**

check, passport, etc. When the bearer of such document attempts

to use same, the information contained in the machine readable

image code may be scanned, decoded (and decrypted) at the user's

site and compared to the human readable information contained on

the image-containing document, or the bearer's fingerprints, retina

feature, facial feature, signature, etc., in real time (lines 21-29, Col.

3)].

p. *Referring to Claim 20:*

Wang et al. disclose the third-party check of claim 19, wherein the user-

inputted information is a handwritten signature **[i.e., an actual signature

(line 19, Col. 3)]**.

q. *Referring to Claim 21:*

Wang et al. disclose the third-party check of claim 19, wherein the user-

inputted information is a payor **[i.e., an actual signature, significant

dates and the like (lines 19-20, Col. 3). Bank checks 32 (as shown

in FIG. 9), on which a placeholder for payor information is required

by a user]**.

r. *Referring to Claim 22:*

Wang et al. disclose the third-party check of claim 19, wherein the user-

inputted information is a payee **[i.e., an actual signature, significant

dates and the like (lines 19-20, Col. 3). Bank checks 32 (as shown**

in FIG. 9), on which a placeholder for payee information is required

by a user].

s. _Referring to Claim 23:_

The third-party check of claim 19, wherein the user-inputted information

is a dollar amount **[i.e., an actual signature, significant dates and the

like (lines 19-20, Col. 3). Bank checks 32 (as shown in FIG. 9), on

which a placeholder for dollar amount information is required by a

user]**.

t. _Referring to Claim 24:_

Claim 24 encompasses limitations that are similar to those of Claim 19.

Thus, it is rejected with the same rationale applied against Claim 19

above.

u. _Referring to Claim 25:_

As per Claim 25, the rejection of Claim 24 is incorporated. In addition,

Claim 25 encompasses limitations that are similar to those of Claim 20.

Thus, it is rejected with the same rationale applied against Claim 20

above.

v. _Referring to Claim 26:_

As per Claim 26, the rejection of Claim 24 is incorporated. In addition,

Claim 26 encompasses limitations that are similar to those of Claim 21.

Thus, it is rejected with the same rationale applied against Claim 21

above.

w. *Referring to Claim 27:*

As per Claim 27, the rejection of Claim 24 is incorporated. In addition, Claim 27 encompasses limitations that are similar to those of Claim 22. Thus, it is rejected with the same rationale applied against Claim 22 above.

x. *Referring to Claim 28:*

As per Claim 28, the rejection of Claim 24 is incorporated. In addition, Claim 28 encompasses limitations that are similar to those of Claim 23. Thus, it is rejected with the same rationale applied against Claim 23 above.

y. *Referring to Claim 29:*

Wang et al. disclose the third-party check of claim 24, wherein the human-readable information is a MICR line **[i.e., an actual signature, significant dates and the like (lines 19-20, Col. 3). Bank checks 32 (as shown in FIG. 9), on which the bank routing number, customer account number, and other relevant magnetic ink printed information are included]**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (U.S. Patent 5,490,217) as applied to claim 1 above, and further in view of Cummings et al. (U.S. Patent 6,869,015).

   a. *Referring to Claim 3:*

   Wang et al. disclose the apparatus of claim 1, but do not expressly discuss wherein the digitally encoded signature is printed on the document in the form of glyph marks. However, Cummings et al. discuss the method of generating and printing of the bardcode representation of signature from a glyph mark **[i.e., Glyphs are constructed form a base in a variety of ways depending on the method chosen to generate the signature texture and pattern. If the encoding method is not used to produce the signature, glyphs can be as simple as a single copy of base (lines 28-32, Col. 10). Alternatively, and preferably, glyphs can be constructed from the base with repetition and permutation to broaden and homogenize the spectrum of each glyph (lines 45-47, Col. 10). A barcode is then printed utilizing these particle-containing inks. The printed phosphor particles are observed by exposure to a 980 nm light and the location of the particles recoded for future reference (lines 39-42, Col. 18)].** Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Wang et al.

with Cummings et al., since one would have been motivated to further include tamper-indicating barcodes that provide a reliable and efficient way to determine if a barcode has been subjected to subtle or sophisticated tampering (lines 55-58, Col. 1).

8. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (U.S. Patent 5,490,217) as applied to claim 9 above, and further in view of Mayer, Jr et al. (U.S. Patent 6,869,015).

   a. _Referring to Claim 12:_

   Wang et al. disclose the method of claim 9, but do not expressly discuss wherein the decoding step further comprises placing the document under a viewport, wherein the viewport converts the encoded information to decoded information. Mayer, Jr. et al. discuss the decrypting device for authentication of documents, which bears a cryptographic representation of signature **[i.e., As seen in FIG. 2, decrypting device 48 comprises a unitary decrypting lens array 50, corresponding to encrypting lens 28, which is closely juxtaposed to a bank check 52. Bank check 52 is held in place by spring-loaded clamping means particularly described in Mayer-Dobbins '109, and not shown herein. Bank check 52 is so juxtaposed to decrypting lens array 50 that the encrypted image from the film in camera 12 which is reproduced at its upper right hand corner directly confronts decrypting lens array 50 (lines 24-33, Col. 5). As will be evident to**

those having ordinary skill in the art, informed by the present disclosure and Mayer-Dobbins '109, an observer looking into opening 64 in the smaller end of housing 66, through lenses 60, 62, will see the signature made by the authorized drawer (user) on the signature line of bank check 52, and will also see, through decrypting lens array 50 and lens 58, the drawer's signature as it appears on the signature card used in making the encrypted image which is reproduced on bank check 52 (lines 41-50, Col. 5)]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Wang et al. with Mayer, Jr. et al., since one would have been motivated to perform the acts of verifying and authenticating handwritten signature of authorized users of documents such as bank checks, savings account passbooks, credit cards, identification cards, and the like (line 56-59, Col. 1) prior to transferring the information to computer for further processing in order to save more time and resources.

b. *Referring to Claim 13:*

Wang et al. do not expressly disclose the method of claim 12, further comprising the step of superimposing the decoded information on the document. However, Mayer, Jr. et al. discuss the encrypting device comprising a camera and lens for reproducing the encrypted version of signature card with the account number or other relevant information

superimposed on each other and the decrypting device for displaying the

information as it appears in the encrypted image [i.e., **In accordance**

with the teachings of the present invention, the signature 72 of an

authorized drawer (user) of these checks, John D. Depositor,

coincides with a representation 74 of said account code number

69134208, i.e., account code number representation 74 is

superimposed on signature 72, or signature 72 is superimposed on

account code number representation 74 (lines 64-68, Col. 5 and

lines 1-2, Col. 6). As will be evident to those having ordinary skill in

the art, informed by the present disclosure and Mayer-Dobbins

'109, an observer looking into opening 64 in the smaller end of

housing 66, through lenses 60, 62, will see the signature made by

the authorized drawer (user) on the signature line of bank check 52,

and will also see, through decrypting lens array 50 and lens 58, the

drawer's signature as it appears on the signature card used in

making the encrypted image which is reproduced on bank check 52

(lines 41-50, Col. 5)].

c. _Referring to Claim 14:_

Wang et al. and Mayer, Jr. et al. disclose the method of claim 12. In

addition, Wang et al. disclose the step of displaying outside of the

documents [i.e., **The encoder/decoder 4 will typically be a standard**

programmable micro-computer and includes a display (lines 3-4,

Col. 4)]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to combine Wang et al. with Mayer, Jr. et al., since one would have been motivated to perform the acts of verifying and authenticating handwritten signature of authorized users of documents such as bank checks, savings account passbooks, credit cards, identification cards, and the like (line 56-59, Col. 1) and transfer the corresponding information to computer display for further detailed processing.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

 a. Mowery, Jr. (U.S. Patent 5,951,055) discloses a security document, comprising human readable transaction data, a plurality of security image elements, a plurality of complementary security image elements, and an encoded information block comprising a plurality of digital glyphs printed thereon. The human readable transaction data printed on the top surface of the substrate forms a full tone image and includes an enhanced security data item. The security image elements printed on the top surface of the substrate and the plurality of complementary security image elements printed on the top surface of the substrate define a security image. The encoded information block comprises a plurality of digital glyphs printed on

the top surface of the substrate and comprises encoded transaction data

corresponding to at least a portion of the human readable transaction

data. The digital glyphs are printed on the top surface of the substrate to

form less than a full tone image and the encoded transaction data is

positioned proximate the enhanced security data item such that any

alteration to the enhanced security data item results in inadvertent

alteration to the encoded transaction data.

b. Zhou et al. (U.S. Patent 6,201,901) disclose two-dimensional barcodes,

each having encoded digital information in a bitmap representing

preferably randomized encoded data bits, are printed onto a printed

medium. In one embodiment, the bitmap may further include "anchor" bits

in each corner, which are used as part of the skew estimation and

deskewing processes during decoding. In a second embodiment, no

"anchor" bits are required. .The encoded digital information is mapped into

the two-dimensional barcode in such a way as to minimize the errors

caused by damage to particular rows and/or columns, for example, row

damage caused by faxing the printed barcode. To extract the encoded

digital information from the printed medium, the printed medium is

scanned, then the bitmap is located within the printed medium. The skew

of the bitmap, if any, is determined, and the bitmap is deskewed if

necessary. The bitmap is then cropped, and the randomized digital

information is read from the bitmap. The digital information is

derandomized and any error correction codes are removed, in the process

correcting and/or recording any errors discovered, thereby reproducing the

original encoded digital information.

c. Tani et al. (U.S. Patent 5,793,031) disclose an encoded symbol reader for

reading and decoding an image of an encoded symbol is capable of

operating in three modes and has a CCD, a display, and a light source. In

each mode, the reading of an encoded symbol is initiated by a trigger

switch. In the first mode, the CCD, display and light source are

continuously driven and remain in an ON state. In the second mode, the

CCD, display and light source are turned OFF when a decoding operation

is completed after the trigger switch is released. In the third mode, the

CCD, display, light source are turned OFF after a predetermined period

has elapsed after the decoding operation is completed and the trigger

switch is released. While operating in the third mode, during the

predetermined interval, the re-reading of another symbol can be

immediately executed without having to wait for the components to warm

up.

10. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Yin-Chen Shaw whose telephone number is 571-

272-8593. The examiner can normally be reached on 8:00 to 4:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Yen Vu can be reached on 571-272-3859. The fax phone
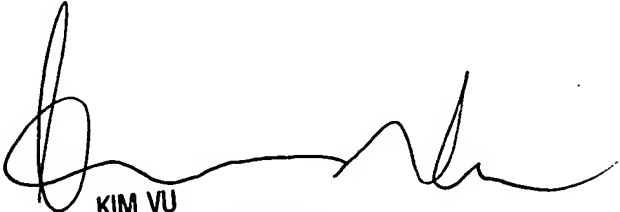
number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Y.C. Shaw

May 26, 2005

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